**St Mary’s Year 6 Maths overview**

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| **MNP** | **NCETM Spine Materials (subject knowledge development)** | **Additional resources to support understanding**  |
| **Yr6 NCETM assessment materials** | **I See Reasoning** | **NRICH** | **White Rose** |
| **Numbers to 10 million**- Reading and Writing Numbers to 10 million- Comparing numbers to 10 million- Comparing and ordering numbers to 10 million- Rounding numbers  | **1.30: TP 1:1-1.8, 2.1-2.8, 3.1-3.6****1.30: TP 2.9-2.10, 3.3****1.30: TP 5.1-5.13** | **P9-11** | Spot the pattern, p5Different ways, p7Explain, p9Explain, p19How many ways, p20 | [Round the four dice](https://nrich.maths.org/10426) | [Place value](https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Year-6-Block-1-Place-Value.pdf) |
| **Four operations**- Using mixed operations- Multiplying by 2-digit numbers- Dividing by 2-digit numbers- Solving worded problems- Finding common multiples- Finding common factors- Finding prime numbers | **1.30: TP 4.1-4.8, 6.1-6.13****2.28: TP:** **1.1-1.5, 2.1-2.5****2.23: TP 1.1- 1.7, 2.1- 2.8, 3.1-3.3, 4.1-4.13, 5.1-5.6,** **2.24: TP 1.1- 1.7, 2.1- 2.9, 3.1-3.7****1.31: TP 1.1-1.4, 2.1-2.5, 3.1-3.7, 4.1-4.5, 5.1-5.7** | **P12- 17** | Investigate, p24Explain, p25Explain the mistake, p27I know…so…, p27Is it the same? P30True or false, p31Missing digits, p34Rank by difficulty, p37I know…so… p38Explain the mistakes, p40Form of an answer, p41How many ways, p42How many ways, p43 | [Explore the number patterns you make](https://nrich.maths.org/8387)[Moons of Vuvv](https://nrich.maths.org/1066)[Mystery Matrix](https://nrich.maths.org/1070)[Factor lines](https://nrich.maths.org/1138)[Factor-multiple chains](https://nrich.maths.org/5578)[Round and Round the Circle](https://nrich.maths.org/86)[Counting Cogs](https://nrich.maths.org/6966)[Four go](https://nrich.maths.org/5633) | [Four operations](https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Year-6-Block-2-Four-Operations.pdf) |
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| **Fractions**- Simplifying fractions- Comparing and ordering fractions- Adding and subtracting fractions- Multiplying fractions- Dividing a fraction by a whole number | **3.9: TP: 1.1- 1.12****3.9: TP: 2.1- 2.9, 3.1-3.8** | **P18- 22** | How many ways, p46Explore, p48Different ways, p49How many ways, p50Rank by difficulty, p53How many ways, p54Explain the mistake, p55Rank by difficulty, p55How may ways, p55I know…so…, p56Explain, p57Rank by difficulty, p58I know…so…, p58Which picture, p60 | [Rectangle tangle](https://nrich.maths.org/1048)[Fraction Fascination](https://nrich.maths.org/5061) | [Fractions](https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Year-6-Block-3-Fractions.pdf) |
| **Decimals**- Writing and reading decimals- Dividing whole numbers- Writing fractions as decimals- Multiplying decimals- Dividing decimals- Multiplying decimals by a 2-digit whole number | **2.29: TP 1.1- 1.6, 2.1- 2.5** | **P18- 22** | Number lines, pg10How many ways, pg11 |  | [Decimals](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/01/Year-6-2018-19-Spring-Term-Block-1-FINAL.pdf) |
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| **Measurements**- Converting units of length. - Converting units of Mass. - Converting units of Volume. - Converting units of Time.  |  | **P30-33** | Explain the mistake, p66Rank by difficulty, p66Explore, p67, 68Order, p68 |  | [Measures](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/SOL-Year-6-2018-19-Spring-Term-Block-4-FINAL.pdf) |
| **Worded problems**- Solving worded problems |  |  |  |  |  |
| **Percentages**- Finding the percentage of a number- Finding the percentages of a quantity- Finding percentage change- Using percentage to compare |  |  | Different ways, p61 | [**Doughnut percents**](https://nrich.maths.org/6945)[**Would you rather?**](https://nrich.maths.org/1118) | [Percentages](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Year-6-2018-19-Spring-Term-Block-2-FINAL_v2.pdf)  |
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| **Ratio**- Comparing quantities- Comparing numbers- Solving worded problems | **2.27 TP: 1.1-1.8, 2.1-2.5, 3.1- 3.6, 4.1-4.10** | **P23-25** |  | [**Orange drink**](https://nrich.maths.org/2420)[**Pumpkin Pie**](https://nrich.maths.org/1026) | [Ratio](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Year-6-2018-19-Spring-Term-Block-6-FINAL.pdf) |
| **Algebra**- Describing a pattern- Writing algebraic expressions- Writing and evaluating algebraic expressions- Writing formulae- Using formulae- Solving equations |  | **P26-29** | Explain, p62If I know…then I know…p63Which answer, p63Which one, p64Explain, p64, 65 | [Domino sets](https://nrich.maths.org/9965)[Break it up](https://nrich.maths.org/2284)[Holes](https://nrich.maths.org/6529)[Button-up some more](https://nrich.maths.org/7350)[Plenty of pens](https://nrich.maths.org/1117)[Two and two](https://nrich.maths.org/twoandtwo) | [Algebra](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Spring-Year-6-2018-19-Block-3-FINAL.pdf) |
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| **Yr6 NCETM assessment materials** | **I See Reasoning** | **NRICH** | **White Rose** |
| **Area and perimeter**- Finding the area and perimeter- Finding the area of parallelograms- Finding the area of triangles | **2.30: TP 3.1- 3.5, 4.1-4.5****2.30: TP 1.1- 1.7****2.30: TP 2.1-2.9** | **P30-33** | Explain, p73, 74I know…so… p74Different ways, p75Which answer? P76Different ways, p76 | [Dicey perimeter, dicey area](https://nrich.maths.org/10333) | [Perimeter, area and volume](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Year-6-2018-19-Spring-Term-Block-5-FINAL.pdf) |
| **Volume**- Finding the volume of cubes- Solving problems involving the volume of solids |  | **P30-33** | Estimate, p70, 71 | [Next size up](https://nrich.maths.org/6931) |  |
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| **Geometry**- Investigating vertically opposite angles- Solving problems involving angles- Investigating angles in triangles- Investigating angles in quadrilaterals- Naming parts of a circle- Solving problems involving angles in a circle- Drawing quadrilaterals.- Drawing triangles- Drawing nets of 3d shapes |  | **P34-36** | Different ways, p83Explain, p83Different ways, p84Explain the mistakes, p84, 85 | [Shape draw](https://nrich.maths.org/10368)[Baravelle](https://nrich.maths.org/6522)[Making Spirals](https://nrich.maths.org/8294)[Cut nets](https://nrich.maths.org/2315)[Making cuboids](https://nrich.maths.org/90)[Where are they?](https://nrich.maths.org/1058)[Round a hexagon](https://nrich.maths.org/8095)[Always, sometimes or never? Shape](https://nrich.maths.org/12673)[Quadrilaterals](https://nrich.maths.org/quadrilaterals) | [Properties of shape](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/SoLs/Primary/Summer_Term_SOL/Year-6-2018-19-Summer-Block-1-Properties-of-Shape.pdf) |
| **Position and movement**- Showing negative numbers- Describing position- Drawing polygons on a coordinate grid- Describing translations- Describing reflections- Describing movements- Using algebra to describe position- Using algebra to describe movements |  | **P34-36** | Explain the mistake, p81Explain, p82, 83Different ways, p86, 88Explain, p86, 88Explain the mistakes, p87 | [Coordinate Tan](https://nrich.maths.org/1109)[Ten hidden squares](https://nrich.maths.org/2654) | [Position and direction](https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Year-6-Block-4-Position-and-Direction.pdf) |
| **Graphs and averages**- Understanding averages- Calculating the mean- Solving problems involving the mean- Solving information on graphs- Reading pie charts- Reading line graphs- Converting miles into kilometres | **2.26 TP: 1.1-1.4, 2.1-2.8, 3.1-3.2, 4.1-4.2** | **P37-39** | Explain, p90Explain the mistakes, p93Explain, p93How many ways, p94 | [Match the matches](https://nrich.maths.org/4937)[Birdwatch](https://nrich.maths.org/7553) | [Statistics](https://wrm-13b48.kxcdn.com/wp-content/uploads/2019/05/Year-6-2018-19-Summer-Block-3-Statistics.pdf) |
| **Negative numbers**- Adding and subtracting negative numbers- Using negative numbers |  |  | Rank by difficulty, p13Estimate, p14Draw, p14Explain, p15Different ways, p16True or false, p16 | [First connect three](https://nrich.maths.org/5865) |  |